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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/841,082	04/25/2001	Martin Lakner	004501-545	5961

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EXAMINER

NINO, ADOLFO

ART UNIT PAPER NUMBER

2831

DATE MAILED: 03/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/841,082

Applicant(s)

LAKNER ET AL.

Examiner

Adolfo Nino

Art Unit

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 8-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4,6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Specification

The disclosure is objected to because of the following informalities:

Section headings are missing.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Herd et al. (IEEE transactions on applied superconductivity, vol. 7, no. 2, June 1997).

Regarding claim 1 (Amended), Herd et al. disclose a high-voltage insulation system (pg. 531, col. 1, lines 11-13) for electrical insulation of components whose operating temperature is below ambient temperature (pg. 531, col. 1, line 9) comprising a coolant (pg. 531, col. 1, line 38) and a solid material (pg. 531, col. 1, line 25) having a cured polymer matrix (pg. 531, col. 1, lines 32-33) and a base fabric (pg. 531, col. 1, line 31), wherein the base fabric comprises cellulose (line 31).

Regarding claim 7 (Amended), Herd et al. disclose the high-voltage insulation system (pg. 531, col. 1, lines 11-13) as claimed in claim 1, wherein, for mechanical reinforcement glass fibers in the form of fibers or fabrics are added to the base fabric or to the intermediate layer (pg. 531, col. 1, line 31).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 2 (Amended) is rejected under 35 U.S.C. 103(a) as being unpatentable over Herd et al. in view of Applicants' Admitted Prior Art (AAPA). Herd et al. disclose the high-voltage insulation system as claimed in claim 1, wherein the components contain high-temperature superconductor material (pg. 531, col. 1, lines 2-3), **except that** the coolant comprises helium gas instead of liquid nitrogen. AAPA teach that it is known to have a coolant being comprise of liquid nitrogen as set forth at page 2, lines 2-4. Therefore, because these two coolants were art-recognized equivalents at the time

the invention was made, one of ordinary skill in the art would have found it obvious to substitute liquid nitrogen for helium gas.

Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herd et al. in view of Gainer et al. (US 3,775,719).

Regarding claim 3 (Amended), Herd et al. disclose the high-voltage insulation system (pg. 531, col. 1, lines 11-13) as claimed in claim 1, **except for** that in order to make the components mechanically robust, the base fabric is in the form of pressboards. Gainer et al. teach that it is known to have a base fabric in the form of pressboards as set forth at column 1, lines 17-18. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the base fabric in the form of pressboards, as taught by Gainer et al. in order to make the components mechanically robust as set at col. 1, lines 21-22 of Gainer et al.

Regarding claim 4 (Amended), the modified Herd et al. disclose the high-voltage insulation system (pg. 531, col. 1, lines 11-13) as claimed in claim 3, wherein the base fabric comprises a laminate (pg. 531, col. 1, line 11-13), **except for** having at least two layers of pressboards, which are separated by at least one intermediate layer. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have at least three layers of pressboards (two outside layers with an intermediate layer), since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Regarding claim 5 (Amended), the modified Herd et al. disclose the high-voltage insulation system as claimed in claim 4, wherein the intermediate layer comprises a fabric composed of cotton, nylon or polyethylene fibers (Gainer et al. at col. 1, lines 17-18).

Claim 6 (Amended) is rejected under 35 U.S.C. 103(a) as being unpatentable over Herd et al. in view of McDermott (US 4,146,858). Herd et al. disclose the high-voltage insulation system as claimed in claim 1, **except for**, in order to grade electrical fields, carbon in the form of fibers or fabrics is being added to the base fabric or to the intermediate layer. McDermott teaches that it is known to add carbon in the form of fibers or fabrics as set forth at col. 3, lines 46-52. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have added carbon in the form of fibers or fabrics to the base fabric or to the intermediate layer, as taught by McDermott in order to give the component semiconductive characteristics.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Itoyama et al. (US 6,514,610 B2) disclose a method for manufacturing improved regenerated cellulose fiber. Tsunoda et al. (US 6,069,430) disclose an insulating material. Dakin (US 4,623,953) discloses a dielectric fluid. Heinrichs (US 4,447,796) discloses a self-adjusting spacer. Sadler et al. (US 3,931,027) disclose a cellulose material.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adolfo Nino whose telephone number is (703) 305-1071. The examiner can normally be reached on M-F (7:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean A Reichard can be reached on (703) 308-3682. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

AN
March 24, 2003

Dean A. Reichard 3/24/03
DEAN A. REICHARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800